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<b>Exhibit R-2, RDT&amp;E Budget Item Justification:</b> PB 2013 Navy	<b>DATE:</b> February 2012
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APPROPRIATION/BUDGET ACTIVITY				R-1 ITEM NOMENCLATURE							
1319: <i>Research, Development, Test &amp; Evaluation, Navy</i> BA 5: <i>Development &amp; Demonstration (SDD)</i>				PE 0604307N: <i>Surface Combatant Cmbt Sys Eng</i>							
COST (\$ in Millions)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost
Total Program Element	195.569	223.217	260.616	-	260.616	253.166	226.221	263.670	142.545	Continuing	Continuing
1447: <i>Surf Combatant Combat System Imp</i>	195.569	223.217	260.616	-	260.616	253.166	226.221	263.670	142.545	Continuing	Continuing

**A. Mission Description and Budget Item Justification**

This project provides Cruiser and Destroyer Aegis Combat System (ACS) upgrades and integrates new equipment and systems to pace the threat and capture advances in technology. Examples of captured advanced technologies are: fiber optics, distributed architecture, and high performance computing, all of which require corresponding Aegis Weapon System (AWS) and ACS changes.

<b>B. Program Change Summary (\$ in Millions)</b>	<b><u>FY 2011</u></b>	<b><u>FY 2012</u></b>	<b><u>FY 2013 Base</u></b>	<b><u>FY 2013 OCO</u></b>	<b><u>FY 2013 Total</u></b>
Previous President's Budget	193.933	223.283	224.116	-	224.116
Current President's Budget	195.569	223.217	260.616	-	260.616
Total Adjustments	1.636	-0.066	36.500	-	36.500
• Congressional General Reductions	-	-0.066			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	7.263	-			
• SBIR/STTR Transfer	-4.552	-			
• Program Adjustments	-	-	37.177	-	37.177
• Rate/Misc Adjustments	-	-	-0.677	-	-0.677
• Congressional General Reductions Adjustments	-1.075	-	-	-	-

**Change Summary Explanation**

Increased funding primarily associated ACB12 upgrades to Combat Systems Engineering Development site (CSEDS).

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<b>COST (\$ in Millions)</b>	<b>FY 2011</b>	<b>FY 2012</b>	<b>FY 2013 Base</b>	<b>FY 2013 OCO</b>	<b>FY 2013 Total</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>	<b>FY 2017</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
1447: <i>Surf Combatant Combat System Imp</i>	195.569	223.217	260.616	-	260.616	253.166	226.221	263.670	142.545	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0		

## A. Mission Description and Budget Item Justification

This project provides Cruiser & Destroyer ACS upgrades and integrates new equipment and systems to pace the threat and capture advances in technology. Examples of captured advanced technologies are: fiber optics, distributed architecture, and high performance computing, all of which require corresponding AWS and ACS changes. The ACS capabilities have continually evolved. Baseline (B/L) 2 (CG 52-58) introduced the Vertical Launch System (VLS), Tomahawk Weapon System, and ASW upgrades. B/L 3 (CG 59-64) introduced the AN/SPY-1B Radar, AN/UYQ-21 consoles, and AN/UYK-43 computers. B/L 4 (CG 65-73) introduced the production of AN/UYK-43/44 computers with superset computer programs developed for the DDG 51. B/L 5 was introduced in FY1992 DDGs and included the Joint Tactical Information Distribution System (JTIDS), Tactical Data Information Link (TADIL)-16, C2P, Combat Direction Finding, Tactical Data Information Exchange System, AN/SLQ-32 (V)3 Active Electronic Counter Countermeasures, and Aegis ER Missile. B/L 5 was developed in two steps (Phase 1 and Phase 3): Phase 1 integrated AEGIS ER and supported the Missile Initial Operating capability; Phase 3 integrated system upgrades including Defensive Electronic Attack, Track Load Control Algorithms, and Track Initiation Processor (integrated on B/L 5 Phase 3, DDGs 68+); JTIDS and the OJ-663 color display Tactical Graphics capability into the ACS. B/L 5 Phase 3 is now resident on baseline 3 and 4 CGs and DDG 51-78. B/L 6 Phase 1 introduced Commercial Off-The-Shelf (COTS), Fiber Data Distribution System (FDDI) Local Area Network (LAN), UYQ-70 consoles, Cooperative Engagement Capability (CEC) for CGs, and an adjunct COTS computer for Aegis Display System (ADS). It supported OPEVAL of CEC in CGs 66 and 69 and was introduced in the DDG 51 class beginning with DDG 79. B/L 6 Phase 1 is now resident on CGs 59, 65, 66, 68, 69, and 71. B/L 6 Phase 3 was introduced on DDGs 85-90 and was back-fitted onto DDGs 79-84. B/L 6 Phase 3 upgrades included embarked helicopters, Fiber Optic Data Multiplexing System (FODMS), implementation of affordability initiatives, adjunct computers for all AWS elements, CEC for DDGs and Battle Force Tactical Trainer (BFTT), ADS, Evolved Sea Sparrow Missile (ESSM) upgrades Phase 1, Advanced Tomahawk Weapon Control System (ATWCS) Phase II, Fire Control System Upgrades, and Joint Maritime Command Information System (JMCIS). B/L 7 Phase 1 is installed in the DDG 51 class beginning with DDG 91-102. Major B/L 7 upgrades include but are not limited to introduction and integration of new radar (AN/SPY-1D(V) upgrade), replacement of all UYK-43 and adjunct computers with a COTS-based advanced computing infrastructure, AN/SQQ-89(V)15, and the Remote Mine Hunting System. B/L 7P1R (DDG 103-112) upgraded the computing infrastructure, Close-in Weapon System (CIWS), Air Control, and introduced Open Architecture (OA) developed products into the baseline.

The Modernization Baselines will provide new technology to replace aging military equipment, extend service life, and maintain viability of AEGIS combatants into the future. These baselines reduce combat system maintenance life cycle costs and streamline the development of capabilities. ACB08/TI08 (Cruiser Modernization) consists of an upgraded computing infrastructure and AEGIS B/L 8 computer program enhancements to existing warfighting capabilities on CG 52-58. ACB12/TI12 (Aegis Modernization) consists of an upgraded computing infrastructure and AEGIS B/L 9A/C computer program enhancements to provide increased warfighting capabilities which will modernize CG 59-73 and DDG 51-78. AEGIS B/L 9A/C Destroyer upgrades will consist of Naval Integrated Fire Control-Counter Air (NIFC-CA), Standard Missile Block 6 (SM-6), Common Display System (CDS), Common Processing System (CPS), Multi-Mission Signal Processor (MMSP), and Ballistic Missile Defense (BMD). AEGIS B/L 9A Cruiser Upgrades will consist of NIFC-CA, SM-6, CDS, and CPS. AEGIS B/L 7.2 will develop a computer program that will port into the B/L 7.1.3 and B/L 7.1R hardware configurations to address fleet-reported deficiencies related to sustainability, maintainability, interoperability, and stability on DDGs

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Exhibit R-2A, RDT&E Project Justification: PB 2013 Navy		DATE: February 2012		
APPROPRIATION/BUDGET ACTIVITY 1319: Research, Development, Test & Evaluation, Navy BA 5: Development & Demonstration (SDD)	R-1 ITEM NOMENCLATURE PE 0604307N: Surface Combatant Cmbt Sys Eng	PROJECT 1447: Surf Combatant Combat System Imp		
91-112. Accelerated Mid-Term Interoperability Improvement Plan (AMIIP) provides computer program updates to address design issues specific to interoperability in Shipboard Gridlock System/Auto-correlator (SGS/AC) and Aegis B/L 6.3, 7.1.3, 7.1R, 8.1 and 9A/C/D.				
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2011	FY 2012	FY 2013
Title: AEGIS DEVELOPMENT SUPPORT		28.289	43.533	36.668
Articles:		0	0	0
FY 2011 Accomplishments: Providing AEGIS development support for the following: Combat System Engineering Development Site (CSEDS), Program Generation Center, and Computer Program Test Site (CPTS) in support of AEGIS computer program development, testing, and integration for all AWS products. Continuing to provide systems engineering for labs and field activities (to include support services) and providing program management support, modeling & simulation, requirements management, warfighting capability integration impacts, and conceptual studies. Providing computer program license funding to support land-based test site installation, development and test efforts. Providing COTS issue resolution to support in-service AEGIS Ships and address computer program modification to enable integration of replacement parts. AEGIS development support in FY11 is primarily for AEGIS B/L 9A/B/C/D, AEGIS B/L 6.3, AEGIS B/L 7.1.3 upgrade, AEGIS B/L 8.1.1 upgrade, and future combat system development efforts.				
FY 2012 Plans: Plan to provide AEGIS development support for the following: CSEDS, Program Generation Center, and CPTS in support of AEGIS computer program development, testing, and integration for all AWS products. Continue to provide systems engineering for labs and field activities (to include support services) and provide program management support, modeling & simulation, requirements management, warfighting capability integration impacts, and conceptual studies. Provide computer program license funding to support land-based test site installation, development, and test efforts. Provide COTS issue resolution to support in-service AEGIS Ships and address computer program modification to enable integration of replacements parts. AEGIS development support in FY12 is primarily for AEGIS B/L 9A/C/D, AEGIS B/L 6.3, AEGIS B/L 7.2, and future combat system development efforts. Provide system engineering efforts to review and award AEGIS competitive contract to support future development efforts.				
FY 2013 Plans: Plan to provide AEGIS development support for the following: CSEDS, Program Generation Center, and CPTS in support of Aegis computer program development, testing, and integration for all AWS products. Continue to provide systems engineering for labs and field activities (to include support services) and provide program management support, modeling & simulation, requirements management, warfighting capability integration impacts, and conceptual studies. Provide computer program license funding to support land-based test site installation, development and test efforts. Provide COTS issue resolution to support in-service AEGIS				

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B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2011	FY 2012	FY 2013
Ships and address computer program modification to enable integration of replacements parts. AEGIS development support in FY13 is primarily for AEGIS B/L 9A/C/D, AEGIS B/L 6.3, AEGIS B/L 7.2, and future combat system development efforts.				
Title: ADVANCED CAPABILITY BUILD 08  Articles:  FY 2011 Accomplishments: Addressing critical computer program discrepancies related to upgraded capabilities integrated within the AEGIS B/L 8 combat system configuration, and deliver upgraded computer program (8.1.1.1).  FY 2012 Plans: Address critical computer program discrepancies related to upgraded capabilities integrated within the AEGIS B/L 8 combat system configuration.		1.600 0	0.700 0	-
Title: TECHNOLOGY INSERTION 12  Articles:  FY 2011 Accomplishments: Providing system engineering required for integration of COTS technology including CDS, CPS, and other COTS hardware associated with the AEGIS Weapon System. Successfully conducted IPR #5. Continuing to support Advanced Capability Build 12 (ACB-12) system engineering to develop and integrate increased capabilities. Continuing computer program development efforts related to AEGIS ACB12. Continue to test and integrate AEGIS ACB12 capabilities identified.  FY 2012 Plans: Continue to provide system engineering required for integration of COTS technology including CDS, CPS, and other COTS hardware associated with the AEGIS Weapon System. Continue to support system engineering review Test Readiness Review (TRR), System Functional Test (SFT), and Mission Readiness Assessment (MRA). Continue to support ACB12 system engineering to developed and integrated increased capabilities. Continue computer program development efforts related to AEGIS ACB12. Continue testing and integration of AEGIS ACB12 capabilities identified. Execute AEGIS Weapon System demonstration to support system level testing.  FY 2013 Plans: Continue systems engineering support to ACB12 developed and integrated capabilities. Continue computer program development efforts related to AEGIS ACB12. Continue testing and integration of AEGIS ACB12 capabilities identified. Execute AEGIS Weapon System demonstration to support system level testing.		3.175 0	1.721 0	1.473 0
Title: ADVANCED CAPABILITY BUILD 12  Articles:		72.405 0	73.724 0	125.010 0

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B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2011	FY 2012	FY 2013
<b>FY 2011 Accomplishments:</b> Successfully conducted IPR #5, IRD CG62, and AAW radar demonstrations. Continuing to support ACB 12 system engineering to develop and integrate increased capabilities. Continuing computer program development efforts related to AEGIS B/L 9A/C. Continuing testing and integration of AEGIS ACB 12 identified capabilities.				
<b>FY 2012 Plans:</b> Continue to provide system engineering to support B/L 9A/C Aegis Light-Off/System Functional Test (ALO/SFT), IRD DDG53, and MRA. Continue to support ACB 12 system engineering to develop and integrate capabilities. Continue computer program development efforts related to AEGIS B/L 9A/C. Continue testing and integration of AEGIS ACB 12 identified capabilities. Execute AEGIS Weapon System evaluations to support system level testing.				
<b>FY 2013 Plans:</b> Continue to provide system engineering to support MRA No. 2, B/L 9A/C Demonstration, Combat System Ship Qualification Test (CSSQT), and Computer Program Acceptance Panel/Combat System Certification Panel (CPAP/CSCP). Continue to support ACB 12 system engineering to develop and integrate increased capabilities. Continue computer program development efforts related to AEGIS B/L 9A/C. Continue testing and integration of AEGIS ACB 12 identified capabilities. Provide additional Post-availability Underway testing events to evaluate and correct B/L 9A/C Computer Program. Provide additional Combat System suite procurement to support AEGIS ACB 12 development and integration efforts. Equipment suite include MMSP, CDS, CPS, Mission Critical Enclosure (MCE), and other network switches to support development testing.				
<b>Title:</b> ADVANCED CAPABILITY BUILD 12 DELTA CONFIGURATION (DDG 113) <b>Articles:</b>		34.200 0	29.110 0	34.440 0
<b>FY 2011 Accomplishments:</b> Completing system engineering related to the specific design review and completing CDR changes required to support the configuration changes. Commencing computer program capture from Aegis B/L 9A/C to 9D. Conducted Computer Program Incremental Review (CPIR) No. 1 in March and CPIR No. 2 July 2011 to monitor the development and integration of DDG 113 combat system design configuration. Supporting development and integration of the SPY-1D(V) Radar with MMSP.				
<b>FY 2012 Plans:</b> Continue code capture and commence computer program development, commence system test to evaluate DDG 113 unique configuration. Conduct In-Process Reviews (IPRs) No. 6 in Oct 2011, No. 7 in Feb 2012, and No. 8 in July 2012 to monitor the development and integration of DDG 113 combat system configuration. Support Production Readiness Review (PRR) related to the DDG 113 Combat System. Continue to develop SPY-1D (V) Radar interface to the MMSP.				
<b>FY 2013 Plans:</b>				

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B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2011	FY 2012	FY 2013
Continue computer program development and system test as required to evaluate DDG 113 unique configuration. Continue to develop SPY-1D (V) Radar interface to the MMSP. Execute any actions from IPR and PRR related to the DDG 113 Combat System.				
Title: ADVANCED CAPABILITY BUILD 14 (B/L 4 CGs with MMSP)  Articles:  FY 2011 Accomplishments: Completed system engineering efforts to complete System Requirements Review (SRR) and SFR to develop and integrate the AEGIS SPY-1B(V) with MMSP. Complete system engineering efforts to define and modify the AEGIS ACB12 specification to develop and integrate future capabilities.  Effort terminated. Funding moved to support critical AMIIP efforts for Fleet Exercise Trident Warrior in FY12.		27.140 0	-	-
Title: NAVAL INTEGRATED FIRE CONTROL-COUNTER AIR  Articles:  FY 2011 Accomplishments: Continue to support NIFC-CA development and integration within the AEGIS ACB12 combat system configuration. Maintain White Sands Missile Range (WSMR) site to support NIFC-CA and SM6 integration within the AEGIS ACB12 combat system. Conduct IPR to monitor the development and integration of the NIFC-CA capability.  FY 2012 Plans: Continue to support NIFC-CA development and integration within the AEGIS ACB12 combat system configuration. Maintain WSMR site to support NIFC-CA and SM6 integration within the AEGIS ACB12 combat system. Conduct Joint Land-Attack Cruise Missile Defense Elevated Netted Sensor System (JLENS) Demonstration and WSMR Testing to evaluate the development and integration of the NIFC-CA capability.  FY 2013 Plans: Continue to support NIFC-CA development and integration within the AEGIS ACB12 combat system configuration. Maintain WSMR site to support NIFC-CA and SM6 integration within the AEGIS ACB12 combat system. Evaluate results of WSMR testing. Conduct at-sea test.		21.497 0	11.994 0	8.826 0
Title: AEGIS BASELINE 7.2  Articles:  FY 2012 Plans: Conduct IPRs Nos. 1, 2, and 3. Provide engineering effort to develop work package definition, identify specification changes, and define design information to port the AEGIS B/L 7.2 Computer Program into the AEGIS B/L 7.1.3 and B/L 7.1R Hardware		-	19.500 0	18.500 0

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B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2011	FY 2012	FY 2013
configurations and address fleet reported deficiencies related to sustainability, maintainability, interoperability, and stability. Initiate development of production engineering change proposals. Provide New Jersey site upgrades and initiate Virginia site upgrades to support development and test efforts related to AEGIS B/L 7.2. Initiate computer program development. <b>FY 2013 Plans:</b> Complete Virginia site upgrades to support development and test efforts, complete development of production engineering change proposals, conduct Collaborative Navy Certification testing, conduct at-sea testing aboard a selected DDG 91-102 ship, and complete computer program development.				
<b>Title:</b> FUTURE COMBAT SYSTEM DEVELOPMENT AND INTEGRATION  <b>FY 2012 Plans:</b> Conduct Advanced Missile Defense Radar (AMDR) Combat System critical studies; complete AMDR CS Integration In-Process Review (IPR) #1 of Combat System architectures, requirements and interfaces required for AMDR MS B; evaluate early Combat System Integration and Test requirements for AMDR MS C; develop a Land-Based Test Site (LBTS) Engineering Development Plan.  <b>FY 2013 Plans:</b> Conduct AMDR CS Integration IPR #2; develop draft Combat System Interface Requirement Specifications (IRSs); continue refinement of Combat System requirements and architecture; begin concept development of combat system simulation capability to support early Combat System Integration and Test required for AMDR MS C.		-  <b>Articles:</b>	19.975 0	29.399 0
<b>Title:</b> ACCELERATED MID-TERM INTEROPERABILITY IMPROVEMENT PLAN (AMIIP)  <b>FY 2011 Accomplishments:</b> Completed In-Progress Reviews (IPR) Nos. 1 and 2. Completed Flag Reviews Nos. 1 and 2, prototype testing of Attribute Enhanced Correlation, defined a Work Breakdown Structure dictionary and preliminary metrics definition. Categorized existing Trouble Reports, drafted preliminary test plan, defined preliminary scenario requirements, defined preliminary test cases, and conducted Fleet review. Continue to support development of AMIIP components for AEGIS B/L 7.1R, 8.1, 6.3.2 and SGS/AC, and Engineering Assessment No. 1.  <b>FY 2012 Plans:</b> Conduct Engineering Assessments No. 2 and No. 3, define Specification Changes, develop scenarios, and report metrics. Capture AMIIP builds into B/Ls 7.2 and 9A/C/D, verify and validate CPCR, conduct (mini) IPR#3, conduct Test Readiness Review, and conduct Flag Review #3. Conduct Multi-Site Test events #1, #2, and data analysis; conduct IPR No. 4, Flag Review		7.263 0  <b>Articles:</b>	22.960 0	6.300 0

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B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)									FY 2011	FY 2012	FY 2013
#4, Mission Readiness Assessment. AMIIP efforts to date will culminate with final testing and demonstration during the Trident Warrior Fleet exercise.											
FY 2013 Plans: Conduct Engineering Assessment No. 4. Identify and make corrections in AEGIS and SGS/AC computer programs based on Trident Warrior test results, conduct Multi-Site test event No. 3 with analysis, and certify for fielding the Aegis Combat Systems computer programs 6.3.3.0, 7.1R.1.0, and 8.1.2.0.											
Accomplishments/Planned Programs Subtotals									195.569	223.217	260.616
C. Other Program Funding Summary (\$ in Millions)											
Line Item	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost
• R&D 0604501N: Multi Mission Signal Processor	31.624	32.361	14.708	0.000	14.708	14.989	15.984	16.438	16.772	Continuing	Continuing
• SCN 2122: DDG 51	2,900.331	2,081.432	3,514.941	0.000	3,514.941	2,014.297	3,002.049	3,508.440	4,048.090	Continuing	Continuing
• OPN 0960: CG Modernization	348.934	573.349	101.000	0.000	101.000	22.000	79.000	0.000	0.000	Continuing	Continuing
• OPN 5246: AEGIS Support Equipment	81.860	43.148	81.164	0.000	81.164	83.341	50.655	57.500	58.611	Continuing	Continuing
• OPN 0900: DDG Modernization	288.118	117.522	452.371	0.000	452.371	288.134	516.408	469.812	529.385	Continuing	Continuing
• R&D 0604378N PU 3159: NIFC-CA	29.569	24.898	39.974	0.000	39.974	15.821	4.614	4.701	4.787	Continuing	Continuing
• OPN 2980: Multi Mission Signal Processor	18.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing
D. Acquisition Strategy											
Combat system improvements are implemented in baselines as described in the project mission statement. After the combat system is completed and tested, the computer program and associated equipment are delivered to the new construction shipbuilders and modernization shipyards where the program and equipment are installed and tested along with all other elements of the shipboard combat system and associated combat support systems. The computer program is a Government Furnished Equipment (GFE) deliverable to the Production Test Center for equipment test and check out. Future Combat System delivery will be provided in ACBs and Technical Insertions (TIs) using a contract to provide Combat System Engineering Agent (CSEA) services. Additional contracts will be awarded to address B/L 9A/C/D completion, Sites Management, and Future Combat System engineering efforts related to AMDR Integration.											
E. Performance Metrics											
Combat system development efforts will complete major development milestones.											



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<p>Major Milestones for ACB12 (B/L 9A/C):</p> <ul style="list-style-type: none"> <li>Completion of IPR #5 in first quarter of FY11.</li> <li>Completed Installation Readiness Decision #1 fourth quarter of FY11.</li> <li>Installation Readiness Decision #2 second quarter of FY12.</li> <li>9A System Functional Test/Aegis Light-off second quarter of FY12.</li> <li>9C system Functional Test/Aegis Light-off fourth quarter of FY12.</li> <li>9A/C Demonstration 1st quarter of FY13.</li> <li>9A Computer Program Acceptance Panel/Combat System Certification Panel fourth quarter of FY13.</li> <li>9C Computer Program Acceptance Panel/Combat System Certification Panel fourth quarter of FY14.</li> <li>Advanced Capability Build 12 Combat System Ships Qualification Trial third quarter of FY13.</li> <li>9A Warfare Certification first quarter of FY14.</li> <li>9C Warfare Certification fourth quarter of FY14.</li> </ul> <p>Major Milestones for B/L 9D (DDG 113):</p> <ul style="list-style-type: none"> <li>Completed IPR No. 6 (CPIR No. 3) in first quarter of FY12.</li> <li>Completed Test Program Review (TPR) in first quarter of FY12</li> <li>IPR No. 7 (CPIR No. 4) in second quarter of FY12.</li> <li>IPR No. 8 in third quarter of FY12.</li> <li>TRR in second quarter of FY14.</li> <li>DDG 113 Aegis Light-Off in third quarter of FY15.</li> <li>Sea Trials in third quarter of FY16.</li> <li>CSSQT in first quarter of FY17.</li> <li>CSCP certification in first quarter FY18.</li> </ul> <p>Major Milestones for ACB14 (B/L 9B; formerly B/L 4 CGs with MMSP):</p> <ul style="list-style-type: none"> <li>Completed System Requirements Review (SRR) in third quarter of FY11.</li> </ul> <p>Major Milestones for Aegis Baseline 7.2 (formerly 7.1R Backfit):</p> <ul style="list-style-type: none"> <li>IPR No. 1 PDR/CDR in first quarter of FY12.</li> <li>IPR No. 2 Status Check in third quarter of FY12.</li> <li>IPR No. 3 Status Check in fourth quarter of FY12.</li> <li>IPR No. 4 Rvw Readiness for At-Sea Test in third quarter of FY13.</li> <li>At-Sea Test in fourth quarter of FY13.</li> <li>Final Certification in first quarter of FY14.</li> </ul>		

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2013 Navy		<b>DATE:</b> February 2012
<b>APPROPRIATION/BUDGET ACTIVITY</b> 1319: <i>Research, Development, Test &amp; Evaluation, Navy</i> BA 5: <i>Development &amp; Demonstration (SDD)</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 0604307N: <i>Surface Combatant Cmbt Sys Eng</i>	<b>PROJECT</b> 1447: <i>Surf Combatant Combat System Imp</i>
<p>Major Milestones for AMIIP:</p> <p>Completed IPR No. 1 in third quarter FY11.</p> <p>Completed Flag Review (FR) No. 1 in third quarter of FY11.</p> <p>Completed IPR No. 2 in fourth quarter of FY11.</p> <p>Completed FR No. 2 in fourth quarter of FY11.</p> <p>Completed mini-IPR in first quarter of FY12.</p> <p>Multi-Site Test (MST) No. 1 in second quarter of FY12.</p> <p>IPR No. 3 in second quarter of FY12.</p> <p>MST No. 2 and Flag Demonstration in third quarter of FY12.</p> <p>IPR No. 4 in fourth quarter of FY12.</p> <p>Trident Warrior in fourth quarter of FY12.</p> <p>MST No. 3 in second quarter of FY13.</p> <p>Final Certification in third quarter of FY13.</p>		

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**Exhibit R-3, RDT&E Project Cost Analysis: PB 2013 Navy** **DATE:** February 2012

<b>APPROPRIATION/BUDGET ACTIVITY</b> 1319: Research, Development, Test & Evaluation, Navy BA 5: Development & Demonstration (SDD)	<b>R-1 ITEM NOMENCLATURE</b> PE 0604307N: Surface Combatant Cmbt Sys Eng	<b>PROJECT</b> 1447: Surf Combatant Combat System Imp
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Product Development (\$ in Millions)				FY 2012		FY 2013 Base		FY 2013 OCO		FY 2013 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Systems Engineering	SS/CPAF	Lockheed Martin:Moorestown, NJ	1,653.123	132.249	Oct 2011	154.985	Oct 2012	-		154.985	0.000	1,940.357	
Systems Engineering	SS/CPFF	APL:Baltimore, MD	44.953	6.700	Oct 2011	10.705	Oct 2012	-		10.705	0.000	62.358	
Systems Engineering	WR	NSWC:Dahlgren, VA	274.152	36.477	Oct 2011	43.865	Oct 2012	-		43.865	0.000	354.494	
Systems Engineering	SS/CPAF	BAE Systems:Rockville, MD	36.411	3.984	Oct 2011	4.683	Oct 2012	-		4.683	0.000	45.078	
Systems Engineering	WR	NSWC:Port Hueneme, CA	51.214	6.054	Oct 2011	7.149	Oct 2012	-		7.149	0.000	64.417	
Systems Engineering	WR	NWAS:Corona, CA	26.651	1.200	Oct 2011	1.253	Oct 2012	-		1.253	0.000	29.104	
Systems Engineering	WR	SPAWAR:San Diego, CA	9.399	0.390	Oct 2011	0.890	Oct 2012	-		0.890	0.000	10.679	
Systems Engineering	WR	Various:Various	95.370	18.975	Oct 2011	19.323	Oct 2012	-		19.323	0.000	133.668	
Award fees	SS/CPAF	Lockheed Martin:Moorestown, NJ	200.149	9.414	Oct 2011	9.306	Oct 2012	-		9.306	0.000	218.869	
Award fees	SS/CPAF	BAE Systems:Rockville, MD	2.051	0.110	Oct 2011	0.180	Oct 2012	-		0.180	0.000	2.341	
Award fees	SS/CPAF	Alion Science:Washington DC	1.830	0.320	Oct 2011	-	Oct 2012	-		-	0.000	2.150	
Award fees	WR	Various:Various	6.878	0.830	Oct 2011	0.627	Oct 2012	-		0.627	0.000	8.335	
<b>Subtotal</b>			2,402.181	216.703		252.966		-		252.966	0.000	2,871.850	

**Remarks**

Various Performing Activities consist of multiple performing activities with funding for each no greater than \$1 million per year. These larger performing activities include CECOM, National Research Lab (NRL), CDSA Dam Neck, NSWC/Crane, NSWC/Indian Head, and NAWC China Lake.

Test and Evaluation (\$ in Millions)				FY 2012		FY 2013 Base		FY 2013 OCO		FY 2013 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Test and Evaluation	WR	Department of Interior:Boise, Idaho	37.690	0.900	Oct 2011	1.200	Oct 2012	-		1.200	0.000	39.790	

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<b>Exhibit R-3, RDT&amp;E Project Cost Analysis:</b> PB 2013 Navy											<b>DATE:</b> February 2012			
<b>APPROPRIATION/BUDGET ACTIVITY</b> 1319: <i>Research, Development, Test &amp; Evaluation, Navy</i> BA 5: <i>Development &amp; Demonstration (SDD)</i>				<b>R-1 ITEM NOMENCLATURE</b> PE 0604307N: <i>Surface Combatant Cmbt Sys Eng</i>				<b>PROJECT</b> 1447: <i>Surf Combatant Combat System Imp</i>						

  

<b>Test and Evaluation (\$ in Millions)</b>				FY 2012		FY 2013 Base		FY 2013 OCO		FY 2013 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Test and Evaluation	WR	NAVAIR:Pax River, MD	11.624	0.650	Oct 2011	0.850	Oct 2012	-		0.850	0.000	13.124	
<b>Subtotal</b>			49.314	1.550		2.050		-		2.050	0.000	52.914	

  

<b>Management Services (\$ in Millions)</b>				FY 2012		FY 2013 Base		FY 2013 OCO		FY 2013 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Program Management Support	SS/CPAF	Alion Science:Washington DC	22.199	1.845	Oct 2011	2.100	Oct 2012	-		2.100	0.000	26.144	
Program Management Support	SS/CPAF	SAIC:Mclean, VA	5.836	3.119	Oct 2011	3.500	Oct 2012	-		3.500	0.000	12.455	
DAWDF	Various	Various:Various	0.907	-		-		-		-	0.000	0.907	
<b>Subtotal</b>			28.942	4.964		5.600		-		5.600	0.000	39.506	

  

			Total Prior Years Cost	FY 2012		FY 2013 Base		FY 2013 OCO		FY 2013 Total	Cost To Complete	Total Cost	Target Value of Contract
<b>Project Cost Totals</b>			2,480.437	223.217		260.616		-		260.616	0.000	2,964.270	

  

**Remarks**

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Exhibit R-4, RDT&E Schedule Profile: PB 2013 Navy		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test &amp; Evaluation, Navy</i> BA 5: <i>Development &amp; Demonstration (SDD)</i>	R-1 ITEM NOMENCLATURE PE 0604307N: <i>Surface Combatant Cmbt Sys Eng</i>	PROJECT 1447: <i>Surf Combatant Combat System Imp</i>

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<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2013 Navy			<b>DATE:</b> February 2012
<b>APPROPRIATION/BUDGET ACTIVITY</b> 1319: <i>Research, Development, Test &amp; Evaluation, Navy</i> BA 5: <i>Development &amp; Demonstration (SDD)</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 0604307N: <i>Surface Combatant Cmbt Sys Eng</i>	<b>PROJECT</b> 1447: <i>Surf Combatant Combat System Imp</i>	

**Schedule Details**

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<b>Proj 1447</b>				
ADVANCED CAPABILITY BUILD 12 IN-PROGRESS REVIEW #5	1	2011	1	2011
ADVANCED CAPABILITY BUILD 12 INSTALLATION READINESS DECISION #1	1	2012	1	2012
ADVANCED CAPABILITY BUILD 12 INSTALLATION READINESS DECISION #2	3	2012	3	2012
ADVANCED CAPABILITY BUILD 12 9A SYSTEM FUNCTIONAL TEST / AEGIS LIGHT OFF	2	2012	2	2012
ADVANCED CAPABILITY BUILD 12 9C SYSTEM FUNCTIONAL TEST / AEGIS LIGHT OFF	4	2012	4	2012
ADVANCED CAPABILITY BUILD 12 9 A/C DEMONSTRATION	1	2013	1	2013
ADVANCED CAPABILITY BUILD 12 9A COMPUTER PROGRAM ACCEPTANCE PANEL/COMBAT SYSTEMS CERTIFICATION PANEL	1	2014	1	2014
ADVANCED CAPABILITY BUILD 12 9C COMPUTER PROGRAM ACCEPTANCE PANEL/COMBAT SYSTEMS CERTIFICATION PANEL	1	2015	1	2015
ADVANCED CAPABILITY BUILD 12 COMBAT SYSTEM SHIPS QUALIFICATION TRIAL (CG 62)	4	2013	4	2013
ADVANCED CAPABILITY BUILD 12 9A WARFARE CERTIFICATION	2	2014	2	2014
ADVANCED CAPABILITY BUILD 12 9C WARFARE CERTIFICATION	1	2015	1	2015
ADVANCED CAPABILITY BUILD 12 B/L 9D IPR#6 (COMPUTER PROGRAM INCREMENT REVIEW #3)	1	2012	1	2012
ADVANCED CAPABILITY BUILD 12 B/L 9D TEST PROGRAM REVIEW	1	2012	1	2012
ADVANCED CAPABILITY BUILD 12 B/L 9D IPR #7 (COMPUTER PROGRAM INCREMENT REVIEW #4)	2	2012	2	2012
ADVANCED CAPABILITY BUILD 12 B/L 9D IN-PROGRESS REVIEW #8	3	2012	3	2012
ADVANCED CAPABILITY BUILD 12 B/L 9D TEST READINESS REVIEW	2	2014	2	2014

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Exhibit R-4A, RDT&E Schedule Details: PB 2013 Navy			DATE: February 2012		
APPROPRIATION/BUDGET ACTIVITY 1319: Research, Development, Test & Evaluation, Navy BA 5: Development & Demonstration (SDD)		R-1 ITEM NOMENCLATURE PE 0604307N: Surface Combatant Cmbt Sys Eng		PROJECT 1447: Surf Combatant Combat System Imp	
		Start		End	
Events by Sub Project		Quarter	Year	Quarter	Year
ADVANCED CAPABILITY BUILD 12 B/L 9D AEGIS LIGHT OFF		3	2015	3	2015
ADVANCED CAPABILITY BUILD 12 B/L 9D SEA TRIALS		3	2016	3	2016
ADVANCED CAPABILITY BUILD 12 B/L 9D COMBAT SYSTEM SHIPS QUALIFICATION TRIAL		1	2017	2	2017
ADVANCED CAPABILITY BUILD 14 SYSTEM REQUIREMENTS REVIEW		3	2011	3	2011
ACCELLERATED MID-TERM INTEROPERABILITY IMPROVEMENT PROGRAM IN- PROGRESS REVIEW #2		4	2011	4	2011
ACCELLERATED MID-TERM INTEROPERABILITY IMPROVEMENT PROGRAM MULTI-SITE TEST #1		2	2012	2	2012
ACCELLERATED MID-TERM INTEROPERABILITY IMPROVEMENT PROGRAM IN- PROGRESS REVIEW #3		2	2012	2	2012
ACCELLERATED MID-TERM INTEROPERABILITY IMPROVEMENT PROGRAM MULTI-SITE TEST #2		3	2012	3	2012
ACCELLERATED MID-TERM INTEROPERABILITY IMPROVEMENT PROGRAM IN- PROGRESS REVIEW #4		4	2012	4	2012
ACCELLERATED MID-TERM INTEROPERABILITY IMPROVEMENT PROGRAM TRIDENT WARRIOR		4	2012	4	2012
ACCELLERATED MID-TERM INTEROPERABILITY IMPROVEMENT PROGRAM MULTI-SITE TEST #3		2	2013	2	2013
ACCELLERATED MID-TERM INTEROPERABILITY IMPROVEMENT PROGRAM COMBAT SYSTEM CERTIFICATION		3	2013	3	2013
AEGIS 7.2 BACKFIT IN-PROGRESS REVIEW #1 (PRELIMINARY DESIGN REVIEW/ CRITICAL DESIGN REVIEW)		1	2012	1	2012
AEGIS 7.2 BACKFIT IN-PROGRESS REVIEW #2 (STATUS CHECK)		3	2012	3	2012
AEGIS 7.2 BACKFIT IN-PROGRESS REVIEW #3 (STATUS CHECK)		4	2012	4	2012
AEGIS 7.2 BACKFIT IN-PROGRESS REVIEW #4 (READINESS REVIEW FOR AT- SEA TEST)		3	2013	3	2013
AT-SEA TEST		4	2013	4	2013

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Exhibit R-4A, RDT&E Schedule Details: PB 2013 Navy			DATE: February 2012	
APPROPRIATION/BUDGET ACTIVITY 1319: Research, Development, Test & Evaluation, Navy BA 5: Development & Demonstration (SDD)		R-1 ITEM NOMENCLATURE PE 0604307N: Surface Combatant Cmbt Sys Eng		PROJECT 1447: Surf Combatant Combat System Imp
		Start		End
Events by Sub Project		Quarter	Year	Quarter Year
AEGIS 7.2 BACKFIT COMBAT SYSTEM CERTIFICATION		1	2014	1 2014
FUTURE COMBAT SYSTEM DEVELOPMENT AND INTEGRATION IN-PROGRESS REVIEW #1		4	2012	4 2012
FUTURE COMBAT SYSTEM DEVELOPMENT AND INTEGRATION SYSTEM COMBAT SYSTEM ENGINEERING AGENT CONTRACT AWARD		1	2013	1 2013
FUTURE COMBAT SYSTEM DEVELOPMENT AND INTEGRATION SYSTEM IN-PROGRESS REVIEW #2		4	2013	4 2013
FUTURE COMBAT SYSTEM DEVELOPMENT AND INTEGRATION SYSTEM IN-PROGRESS REVIEW #3		4	2014	4 2014
FUTURE COMBAT SYSTEM DEVELOPMENT AND INTEGRATION SYSTEM REQUIREMENTS REVIEW		2	2016	2 2016
FUTURE COMBAT SYSTEM DEVELOPMENT AND INTEGRATION SYSTEM FUNCTIONAL REVIEW		3	2016	3 2016
FUTURE COMBAT SYSTEM DEVELOPMENT AND INTEGRATION PRELIMINARY DESIGN REVIEW		2	2017	2 2017